AMENDMENTS TO THE CLAIMS

1. (Currently amended) A peptide ~~selected from a group consisting of~~ comprising the amino acid sequence:

~~(a)~~ $X_{01}X_{02}X_{03}$GluIleGlnLeuX_{04}His$X_{05}X_{06}X_{07}$LysX_{08}; ~~(SEQ ID NO:1),~~

~~(b)~~ a fragment ~~fragments~~ thereof, containing amino acids 1-9, 1-10, 1-11, 1-12, or 1-13; or

~~(c)~~ a pharmaceutically acceptable ~~salts~~ salt thereof; ~~and~~

~~(d) N- or C- derivatives thereof;~~

wherein:

X_{01} and X_{03} are each an α-helix stabilizing residue,

X_{02} is Trp, Bpa, or Arg ~~or Val~~,

X_{04} is Met, or Nle,

X_{05} is Gln, Deg, or Asn,

X_{06} is Har or Leu,

X_{07} is an α-helix stabilizing residue, Ala, or Gly, and

X_{08} is an α-helix stabilizing residue, Trp, Tyr, or His ~~; and~~

~~wherein said peptide binds selectively to the J domain of P1R~~.

2. (Withdrawn – currently amended) The peptide of claim 1, wherein said α-helix stabilizing ~~residue is~~ residues are selected from the group consisting of Ac_5c, Ac_3c, Deg, and Aib, or ~~the~~ a desamino form thereof ~~of Ac_5c, Ac_3c, Deg, or Aib~~.

3. (Withdrawn – currently amended) The peptide of claim 1 ~~, wherein said peptide is selected from~~ comprising the amino acid sequence:

~~(a)~~ Ac_5cBpaAibGluIleGlnLeuMetHisGlnHarAlaLysTrp (SEQ ID NO:13);

~~(b)~~ a fragment ~~fragments~~ thereof, containing amino acids 1-9, 1-10, 1-11, 1-12, or 1-13; or

~~(c)~~ a pharmaceutically acceptable salt ~~salts~~ thereof ~~; or~~

~~(d) N- or C- derivatives thereof~~.

4. (Cancelled)

5. (Withdrawn – currently amended) The peptide of claim 49 ~~1, wherein said peptide is selected from~~ comprising the amino acid sequence:

~~(a)~~ desamino $Ac_5cValAibGluIleGlnLeuMetHisGlnHarAlaLysTrpNH_2$ (SEQ ID NO:15);

~~(b)~~ a fragment ~~fragments~~ thereof, containing amino acids 1-9, 1-10, 1-11, 1-12, or 1-13; or

~~(c)~~ a pharmaceutically acceptable salt ~~salts~~ thereof~~; or~~

~~(d) N- or C- derivatives thereof~~.

6. (Currently amended) The peptide of claim 49 ~~1, wherein said peptide is selected from~~ comprising the amino acid sequence:

~~(a)~~ desamino $AibValAibGluIleGlnLeuMetHisGlnHarAlaLysTrpNH_2$ (SEQ ID NO:16);

~~(b)~~ a fragment ~~fragments~~ thereof, containing amino acids 1-9, 1-10, 1-11, 1-12, or 1-13; or

~~(c)~~ a pharmaceutically acceptable salt ~~salts~~ thereof~~; or~~

~~(d) N- or C- derivatives thereof~~.

7. (Withdrawn – currently amended) The peptide of claim 1~~, wherein said peptide is selected from~~ comprising the amino acid sequence:

~~(a)~~ $Ac_5cTrpAibGluIleGlnLeuMetHisGlnHarAlaLysTrpNH_2$ (SEQ ID NO:17);

~~(b)~~ a fragment ~~fragments~~ thereof, containing amino acids 1-9, 1-10, 1-11, 1-12, or 1-13; or

~~(c)~~ a pharmaceutically acceptable salt ~~salts~~ thereof~~; or~~

~~(d) N- or C- derivatives thereof~~.

8. (Withdrawn – currently amended) The peptide of claim 1~~, wherein said peptide is selected from~~ comprising the amino acid sequence:

~~(a)~~ $Ac_5cBpaAibGluIleGlnLeuMetHisGlnHarAlaLysTrpNH_2$ (SEQ ID ~~NO:18),~~ NO:18);

~~(b)~~ a fragment ~~fragments~~ thereof, containing amino acids 1-9, 1-10, 1-11, 1-12, or 1-13; or

~~(c)~~ a pharmaceutically acceptable salt ~~salts~~ thereof~~; or~~

~~(d) N- or C- derivatives thereof~~.

9. (Withdrawn – currently amended) The peptide of claim 1~~, wherein said peptide is selected from~~ comprising the amino acid sequence:

~~(a)~~ $Ac_5cArgAibGluIleGlnLeuMetHisGlnHarAlaLysTrpNH_2$ (SEQ ID ~~NO:19),~~ NO:19);

~~(b)~~ a fragment ~~fragments~~ thereof, containing amino acids 1-9, 1-10, 1-11, 1-12, or 1-13; or

~~(c)~~ a pharmaceutically acceptable salt ~~salts~~ thereof~~; or~~

~~(d) N- or C- derivatives thereof~~.

10. (Cancelled)

11. (Withdrawn – currently amended) The peptide of claim 1~~, wherein said peptide is selected from~~ comprising the amino acid sequence:

~~(a)~~ $DegTrpDegGluIleGlnLeuMetHisGlnHarAlaLysTrpNH_2$ (SEQ ID NO:21);

~~(b)~~ a fragment ~~fragments~~ thereof, containing amino acids 1-9, 1-10, 1-11, 1-12, or 1-13; or

~~(c)~~ a pharmaceutically acceptable salt ~~salts~~ thereof~~; or~~

~~(d) N- or C- derivatives thereof~~.

12. (Withdrawn – currently amended) The peptide of claim 1~~, wherein said peptide is selected from~~ comprising the amino acid sequence:

~~(a)~~ DegBpaDegGluIleGlnLeuMetHisGlnHarAlaLysTrpNH$_2$ (SEQ ID NO:22);

~~(b)~~ a fragment ~~fragments~~ thereof, containing amino acids 1-9, 1-10, 1-11, 1-12, or 1-13; or

~~(c)~~ a pharmaceutically acceptable salt ~~salts~~ thereof~~; or~~

~~(d) N- or C- derivatives thereof~~.

13. (Currently amended) The peptide of claim 1~~, wherein said peptide is selected from~~ comprising the amino acid sequence:

~~(a)~~ Ac$_5$cTrpAibGluIleGlnLeuNleHisGlnHarAlaLysTyrNH$_2$ (SEQ ID NO:23);

~~(b)~~ a fragment ~~fragments~~ thereof, containing amino acids 1-9, 1-10, 1-11, 1-12, or 1-13; or

~~(c)~~ a pharmaceutically acceptable salt ~~salts~~ thereof~~; or~~

~~(d) N- or C- derivatives thereof~~.

14. (Withdrawn – currently amended) The peptide of claim 1~~, wherein said peptide is selected from~~ comprising the amino acid sequence:

~~(a)~~ Ac$_5$cBpaAibGluIleGlnLeuNleHisGlnHarAlaLysTyrNH$_2$ (SEQ ID NO:24);

~~(b)~~ a fragment ~~fragments~~ thereof, containing amino acids 1-9, 1-10, 1-11, 1-12, or 1-13; or

~~(c)~~ a pharmaceutically acceptable salt ~~salts~~ thereof~~; or~~

~~(d) N- or C- derivatives thereof~~.

15-16. (Cancelled)

17. (Previously presented) The peptide of claim 1, wherein said peptide is labeled.

18. (Original) The peptide of claim 17, wherein said peptide is labeled with a fluorescent label.

19. (Original) The peptide of claim 17, wherein said peptide is labeled with a chemiluminescent label.

20. (Original) The peptide of claim 17, wherein said peptide is labeled with a bioluminescent label.

21. (Original) The peptide of claim 17, wherein said peptide is labeled with a radioactive label.

22. (Original) The peptide of claim 21, wherein said peptide is labeled with ^{125}I.

23. (Original) The peptide of claim 21, wherein said peptide is labeled with ^{99m}Tc.

24. (Withdrawn) A competition binding assay to identify a PTH receptor ligand, which comprises contacting said receptor with the labeled peptide of claim 17 and a candidate receptor ligand, and measuring the label bound to the receptor.

25. (Withdrawn) A competition binding assay to analyze a PTH receptor ligand, which comprises contacting said receptor, or fragments or derivatives thereof, with the labeled peptide of claim 17 and a candidate receptor ligand, and measuring the label bound to the receptor.

26. (Withdrawn) A pharmaceutical composition comprising the peptide of claim 1, and a pharmaceutically acceptable carrier.

27. (Withdrawn) A method for treating mammalian conditions characterized by increased activity or production of PTH or PTHrP, said method comprising administering to a subject in need thereof an effective inhibitory amount of a peptide of claim 1.

28. (Withdrawn) A method for treating mammalian conditions characterized by increased activity or production of PTH or PTHrP, said method comprising administering to a subject in need thereof an effective inhibitory amount of a composition comprising a peptide of claim 1 and a pharmaceutically acceptable carrier.

29. (Withdrawn) The method of claim 27, wherein said condition to be treated is hypercalcemia.

30. (Withdrawn) The method of claim 28, wherein said condition to be treated is malignant hypercalcemia.

31. (Withdrawn – currently amended) The method of claim 27, wherein said effective amount of said peptide for reducing activity or production of PTH or PTHrP ~~increasing bone mass~~ is from about 0.01 μg/kg/day to about 1.0 μg/kg/day.

32. (Withdrawn) The method of claim 27, wherein the method of administration is parenteral.

33. (Withdrawn) The method of claim 27, wherein the method of administration is subcutaneous.

34. (Withdrawn) The method of claim 27, wherein the method of administration is nasal insufflation.

35. (Withdrawn) A method of making the peptide of claim 1, wherein said peptide is synthesized by solid phase synthesis.

36. (Withdrawn) The method of making the peptide of claim 1, wherein said peptide is protected by FMOC.

37. (New) The peptide of claim 1 consisting of said amino acid sequence; a fragment thereof containing amino acids 1-9, 1-10, 1-11, 1-12, or 1-13; or a pharmaceutically acceptable salt thereof.

38. (New) The peptide of claim 37 consisting of said amino acid sequence, or a pharmaceutically acceptable salt thereof.

39. (New) The peptide of claim 3 consisting of the amino acid sequence: Ac_5cBpaAibGluIleGlnLeuMetHisGlnHarAlaLysTrp (SEQ ID NO:13), or a pharmaceutically acceptable salt thereof.

40. (New) The peptide of claim 5 consisting of the amino acid sequence: desamino Ac_5cValAibGluIleGlnLeuMetHisGlnHarAlaLysTrpNH_2 (SEQ ID NO:15), or a pharmaceutically acceptable salt thereof.

41. (New) The peptide of claim 6 consisting of the amino acid sequence: desamino AibValAibGluIleGlnLeuMetHisGlnHarAlaLysTrpNH_2 (SEQ ID NO:16), or a pharmaceutically acceptable salt thereof.

42. (New) The peptide of claim 7 consisting of the amino acid sequence: $Ac_5cTrpAibGluIleGlnLeuMetHisGlnHarAlaLysTrpNH_2$ (SEQ ID NO:17), or a pharmaceutically acceptable salt thereof.

43. (New) The peptide of claim 8 consisting of the amino acid sequence: $Ac_5cBpaAibGluIleGlnLeuMetHisGlnHarAlaLysTrpNH_2$ (SEQ ID NO:18) or a pharmaceutically acceptable salt thereof.

44. (New) The peptide of claim 9 consisting of the amino acid sequence: $Ac_5cArgAibGluIleGlnLeuMetHisGlnHarAlaLysTrpNH_2$ (SEQ ID NO:19), or a pharmaceutically acceptable salt thereof.

45. (New) The peptide of claim 11 consisting of the amino acid sequence: $DegTrpDegGluIleGlnLeuMetHisGlnHarAlaLysTrpNH_2$ (SEQ ID NO:21), or a pharmaceutically acceptable salt thereof.

46. (New) The peptide of claim 12 consisting of the amino acid sequence: $DegBpaDegGluIleGlnLeuMetHisGlnHarAlaLysTrpNH_2$ (SEQ ID NO:22), or a pharmaceutically acceptable salt thereof.

47. (New) The peptide of claim 13 consisting of amino acid sequence: $Ac_5cTrpAibGluIleGlnLeuNleHisGlnHarAlaLysTyrNH_2$ (SEQ ID NO:23), or a pharmaceutically acceptable salt thereof.

48. (New) The peptide of claim 14 consisting of amino acid sequence: $Ac_5cBpaAibGluIleGlnLeuNleHisGlnHarAlaLysTyrNH_2$ (SEQ ID NO:24), or a pharmaceutically acceptable salt thereof.

49. (New) A peptide comprising the amino acid sequence: $X_{01}X_{02}X_{03}$GluIleGlnLeuX_{04}His$X_{05}X_{06}X_{07}$LysX_{08}; a fragment thereof, containing amino acids 1-9, 1-10, 1-11, 1-12, or 1-13; or a pharmaceutically acceptable salt thereof; wherein:

X_{01} is a desamino form of an α-helix stabilizing residue,

X_{02} is Trp, Bpa, Arg, or Val,

X_{03} is an α-helix stabilizing residue,

X_{04} is Met or Nle,

X_{05} is Gln, Deg, or Asn,

X_{06} is Har or Leu,

X_{07} is an α-helix stabilizing residue, Ala, or Gly, and

X_{08} is an α-helix stabilizing residue, Trp, Tyr, or His.

50. (New) The peptide of claim 49, wherein said α-helix stabilizing residues are selected from the group consisting of Ac_5c, Ac_3c, Deg, and Aib.

51. (New) The peptide of claim 49 consisting of said amino acid sequence; a fragment thereof containing amino acids 1-9, 1-10, 1-11, 1-12, or 1-13; or a pharmaceutically acceptable salt thereof.

52. (New) The peptide of claim 51 consisting of said amino acid sequence, or a pharmaceutically acceptable salt thereof.